



**ANCIENT DRAGON**  
- Documentation -

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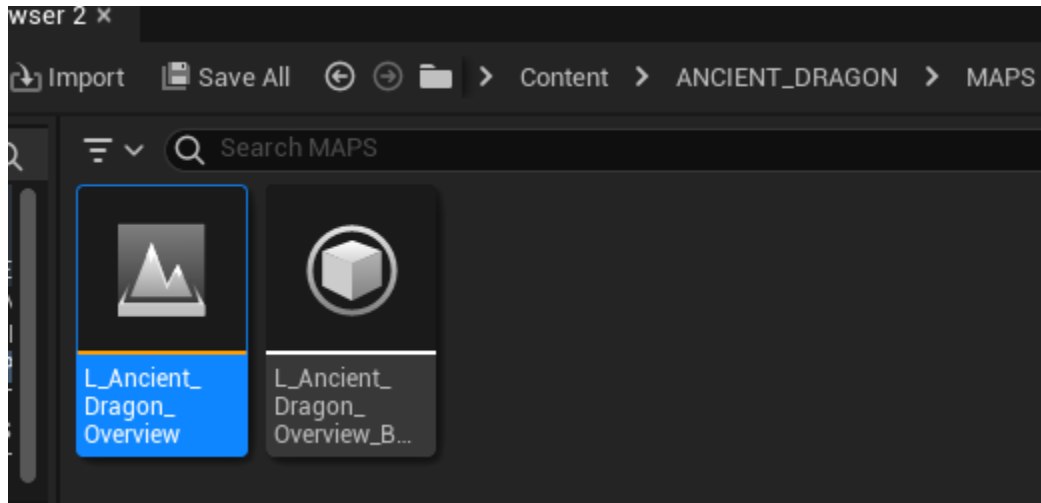
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## A. GETTING STARTED.

### A.1 Maps.

(Content / ANCIENT\_DRAGON / MAPS)

- + [L\\_Ancient\\_Dragon\\_Overview](#): a map that layout all assets in the pack.



### A.2 Naming convention.

This pack use Unreal's standard naming convention (with some additions):

Type	Text	Stand for
Prefix	ABP	Animation Blueprint
	BP	Blueprint
	BPC	Blueprint child.
	BPI	Blueprint Interface
	BS	Blend space
	EN	Enumeration
	GM	Gamemode
	L	Level
	LS	Level sequence
	LSUB	Sub-level
	LGT	Landscape Grass Type

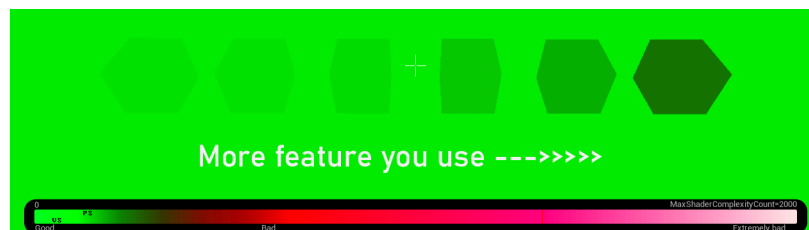
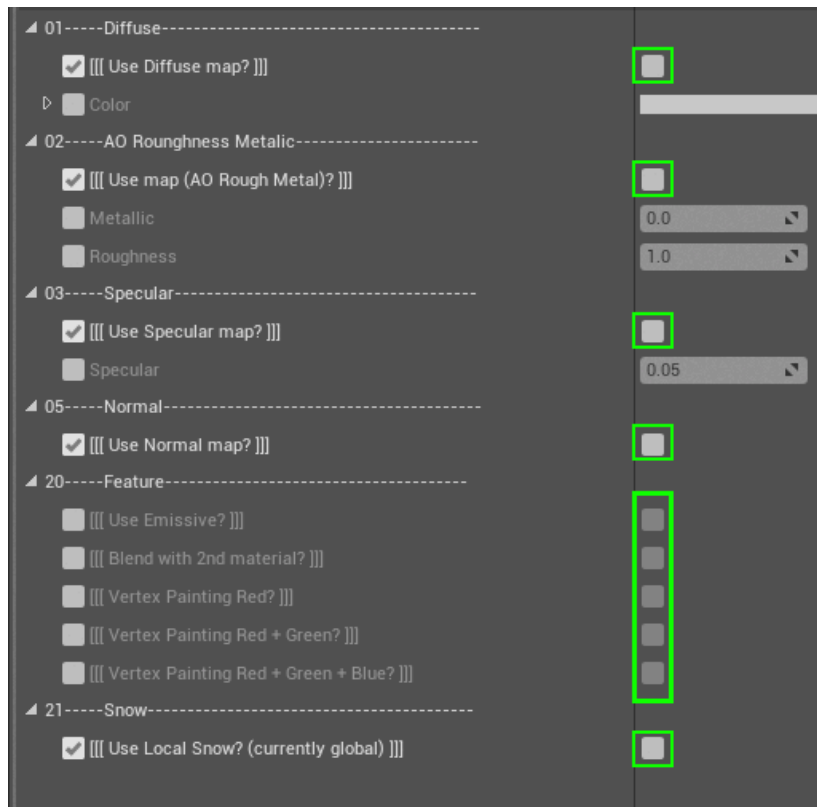
	LLI	Landscape layer info
	LUT	Color Look Up Table
	M	Master material
	MI	Material Instance
	MIG	Material Instance Group
	MF	Material function
	MPC	Material Parameter Collection
	P	Particles
	SM	Static mesh
	SK	Skeletal mesh
	PA	Physics asset
	WB	Widget blueprint
	T	Texture
Suffix	D	Diffuse map
	N	Normal map
	ORM	AO, Roughness, Metallic packed map
	M	Mask map
	SUB	Subsurface scattering (SSS) map
	ME	Metallic map
	H	Height map
	R	Roughness map
	AO	Ambient Occlusion map
	BILL	Billboard texture for tree

## B. MATERIAL.

### B.1 Master.

- The main material of this pack are
- + [M\\_Opaque\\_SSS\\_Master](#)
- + [M\\_Mask\\_Hair\\_Master](#)
- + [M\\_EyeRefractive](#)
- + [M\\_Crystal\\_Master](#)

- These materials work in a way that you only turn on what you need to use. If you keep the default, this material only outputs a simple color with no texture. The more features you use the heavier this material will be.

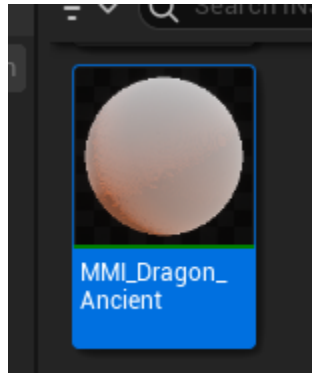


- Most material in this pack use packed ORM texture:
- + R channel: AO map
- + G channel: Roughness map
- + B channel: Metallic map

## B.2 MMI (master material instance).

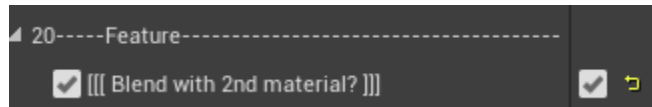
- The MMIs are children of the Master material and parent of all other material instance (MI)
- When the material instance (MI) are children of the MMI, you can change and control all of them easily at the same time. Besides, using MMI increase performance of your game.
- This Dragon use two MMI: MMI\_Dragon\_FIRE and MMI\_Dragon\_ICE.

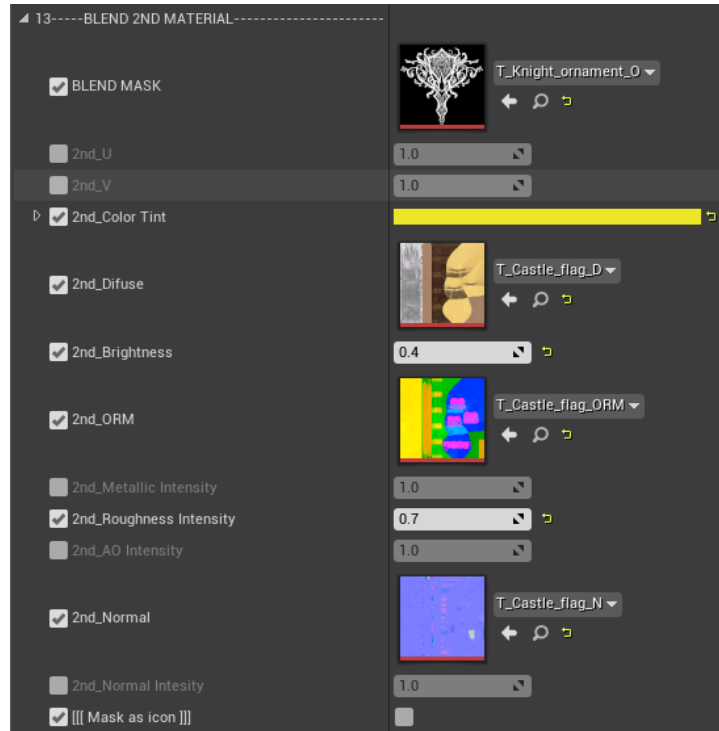
*(ARRASAX\_DRAGON\_MATERIALS\_INSTANCES)*



## B.3 Blend with other material.

- You can blend 2 materials together (using mask) by checking the [Blend with 2nd material](#) checkbox under section 20.Feature.



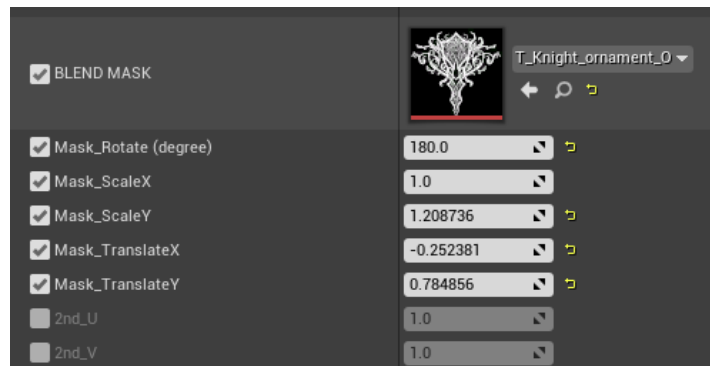


## B.4 Coat of arms.

- In many cases you would want to create a flag, shield, carpet,... with a coat of arms to make them belong to different houses, groups, countries,... You can do that by simply enabling [Blend 2nd material](#) (see B.4) then check the [Mask as icon](#) checkbox.

- A group of new parameter will appear to help you change the position of the coat of arms (since each flag, props have different UV):

- +[Mask\\_Rotate](#): Rotate the mask in degree.
- +[Mask\\_ScaleX](#): Change scale of the mask in U direction
- +[Mask\\_ScaleY](#): Change scale of the mask in V direction
- +[Mask\\_TranslateX](#): Move the mask in U direction
- +[Mask\\_TranslateY](#): Move the mask in V direction



## C. Blueprints.

### C.1.Live link facial mocap (ARKit).

- In order to use the Live Link you have to:

#### On your phone

Step 1: Install Live Link Face app on your iOS device.

Step 2: Make sure your device is on the same Wifi as your PC.

Step 3: Go to LiveLinkFace setting and enable Head Rotation, Blendshape Data.

Step 4: Under Streaming section, go to Live Link. Then Add target. **Then type in your PC ip address.**

#### On your PC

Step 5: Open the Arrasax Dragon pack, go to Overview map.

Step 6: Enable all these Plugins:

+ **ARkit face support.**

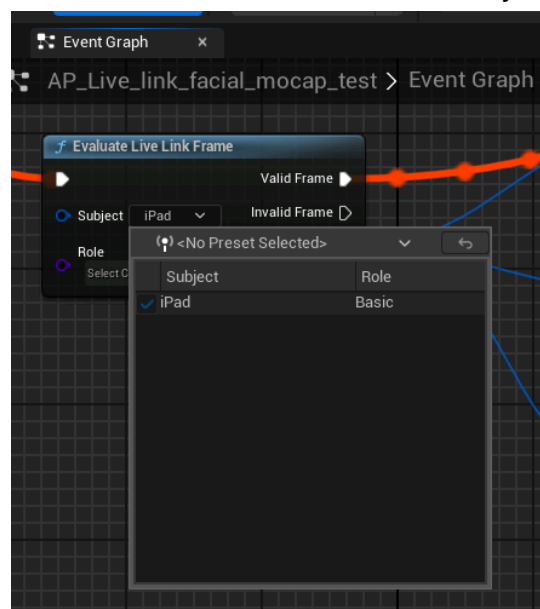
+ **Apple Live Link**

+ **Apple Live Link Face Support.**

Step 7: Open AP\_Live\_link\_facial\_mocap\_test (Content/ANCIENT\_DRAGON/BUEPRINTS)

Step 8: Make sure your device appears in the Evaluate Live Link Frame in Event Graph. **Then set its Role to Basic role.**

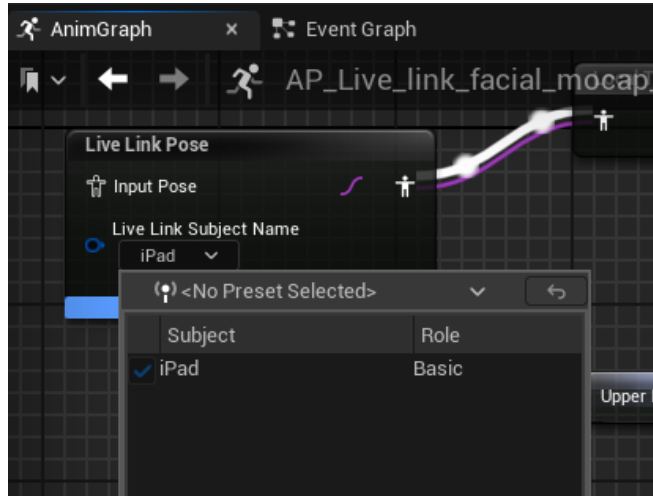
*(Note: your device only appear in the list when the Live is on and your face is clearly visible)*



Step 9: Make sure your device appear in the Live Link Pose in AnimGraph

*(Note: your device only appear in the list when the Live is on and your face is clearly visible)*



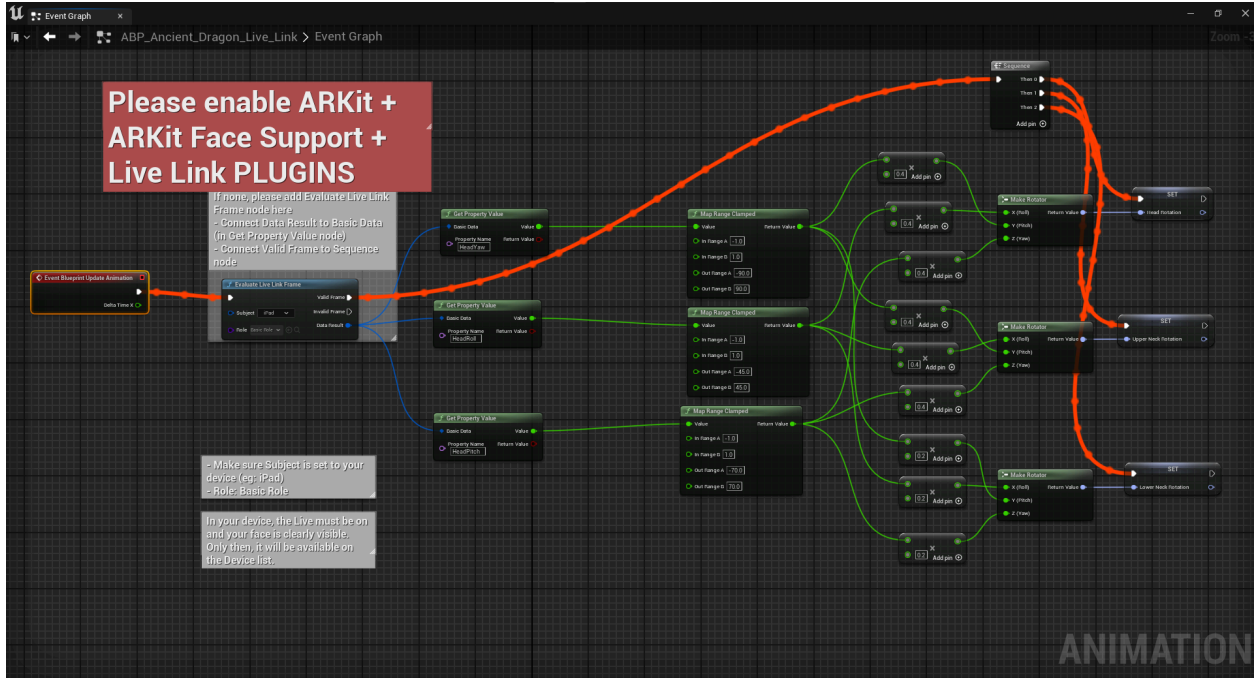


Step 10: All good now. Hit LIVE button on your iOS device, then hit Play button on your PC. You will see this Dragon move its face and head.

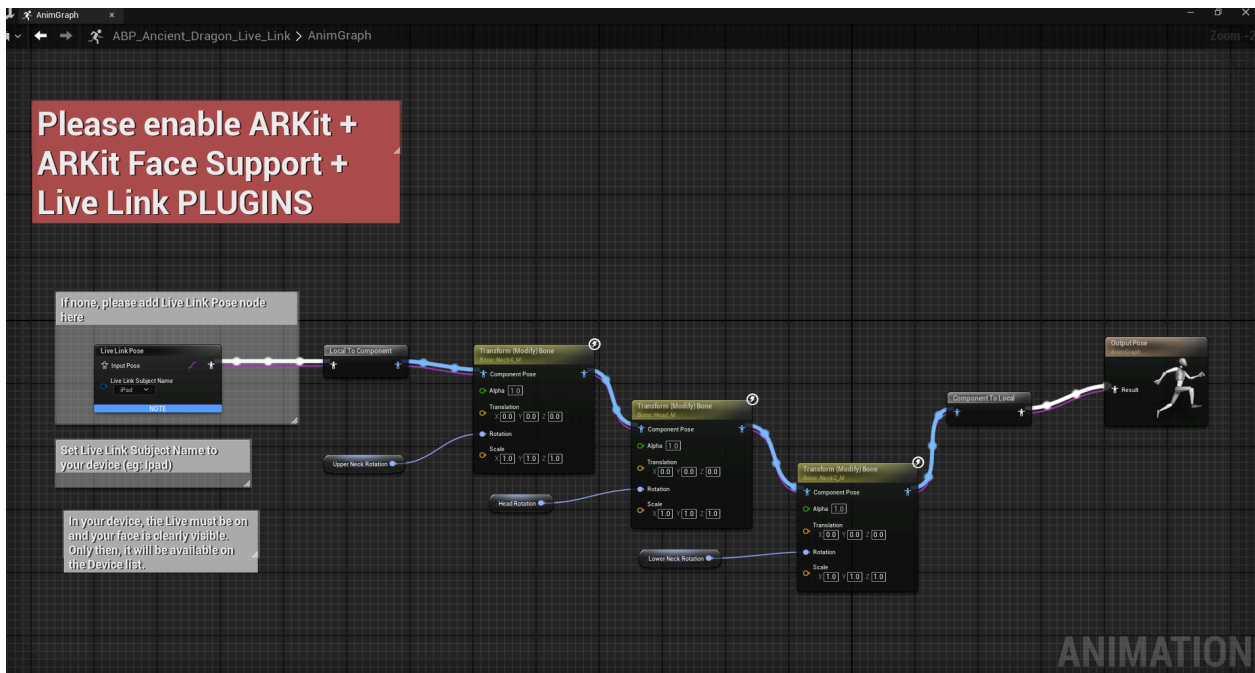


In case of some nodes may be missing, here is the overview of all the nodes:

- Event graph:

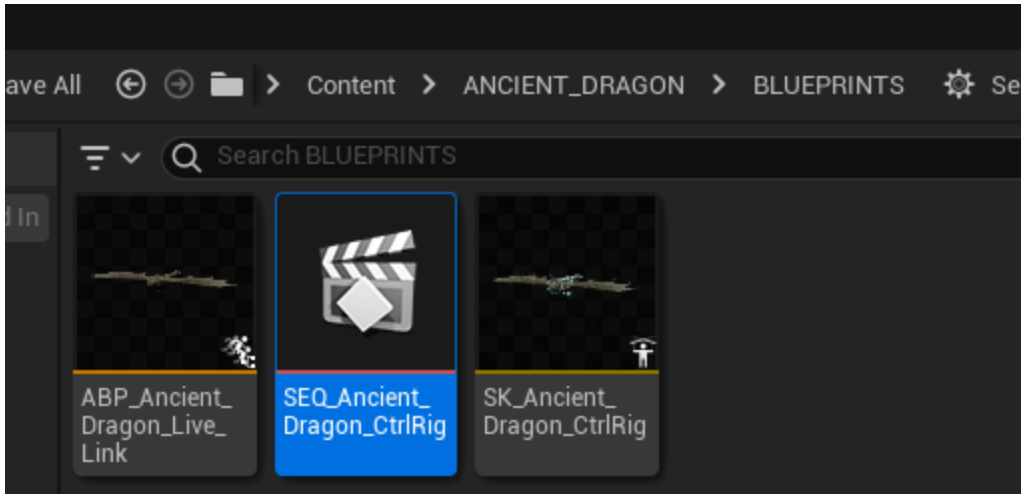


- Anim graph:

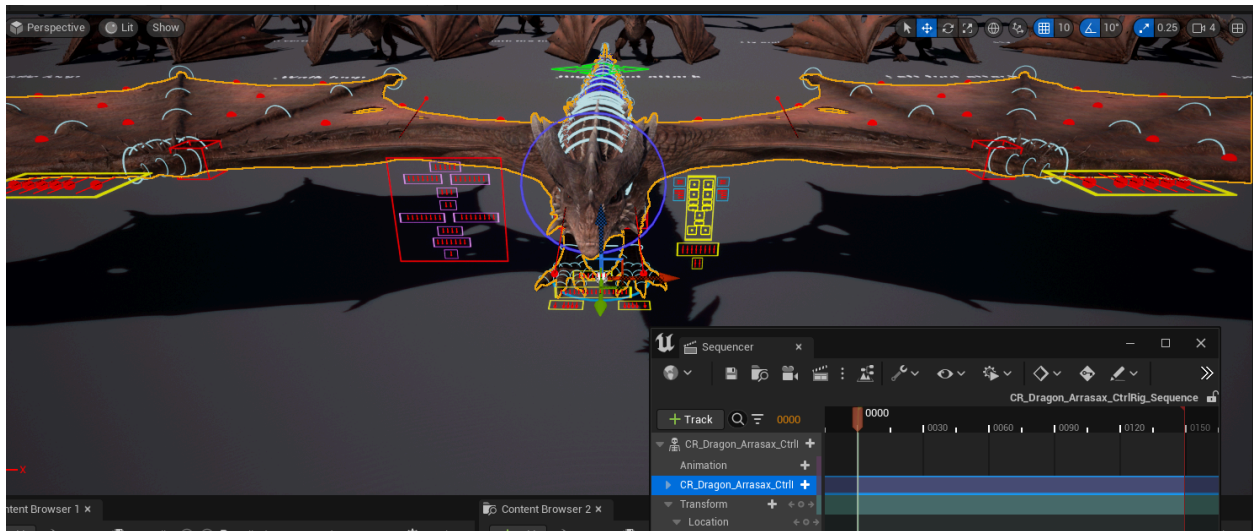


## C.2.Control Rig.

- Open **SEQ\_Ancient\_Dragon\_CtrIRig** to see and modify the rig.  
(Content/ANCIENT\_DRAGON/BLUEPRINTS)



- To use the rig, drag it into the level. A sequencer will appear and let you key the rig.

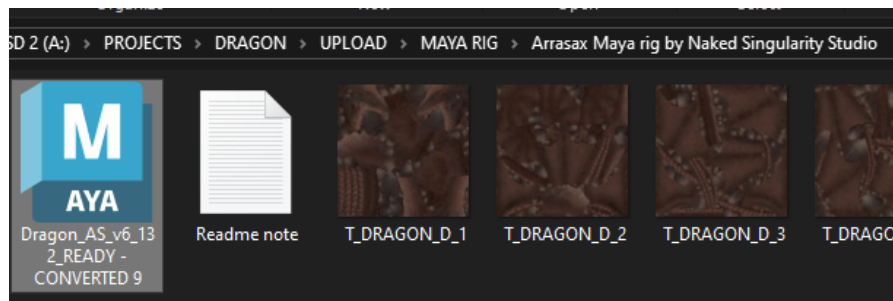
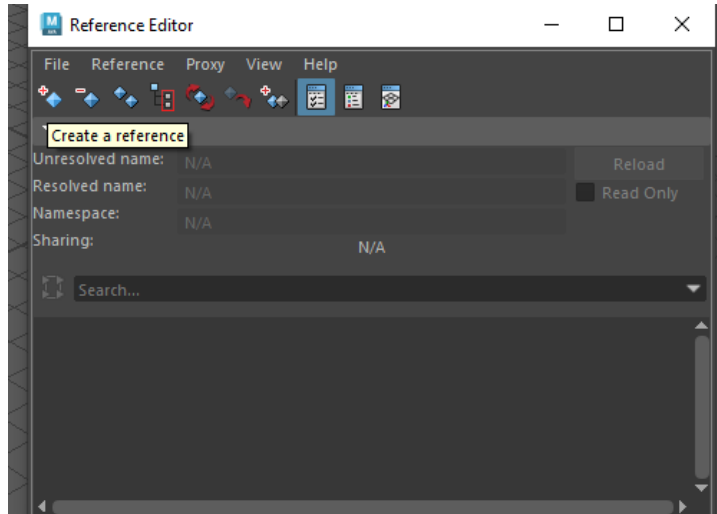


## D. Maya rig.

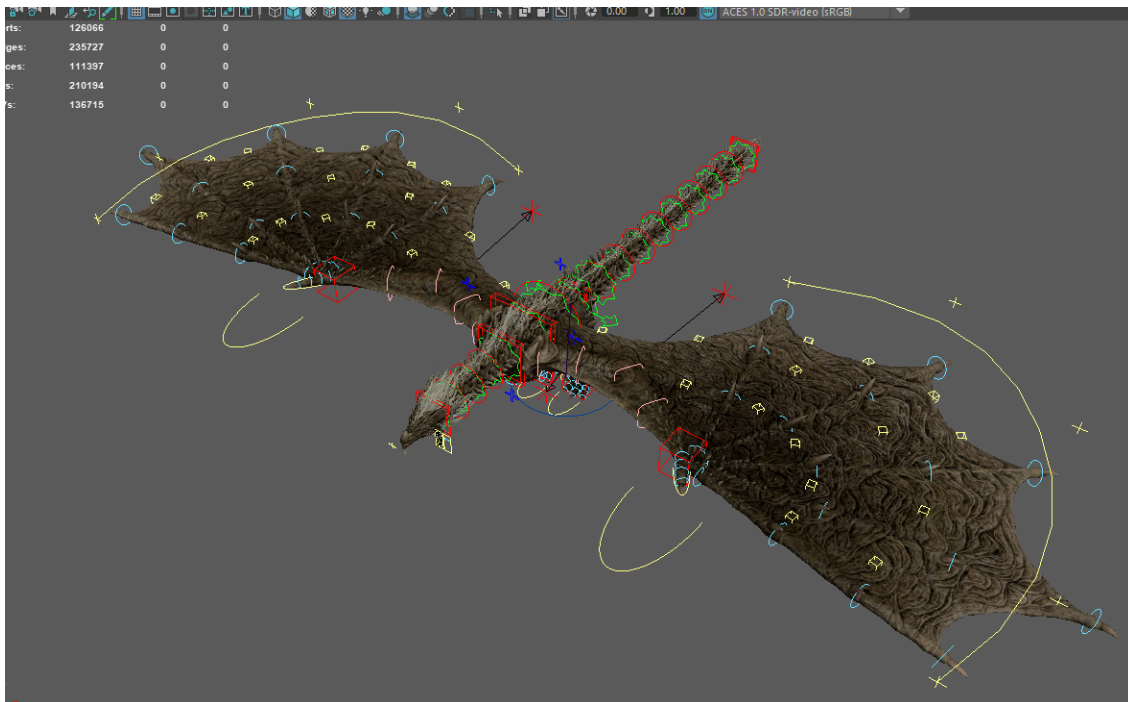
- PLEASE CONTACT US VIA EMAIL TO GET THE FILES.

### D.1 Open the rig file correctly.

- Open Maya, create a new scene then use Reference editor to reference our Rig file.



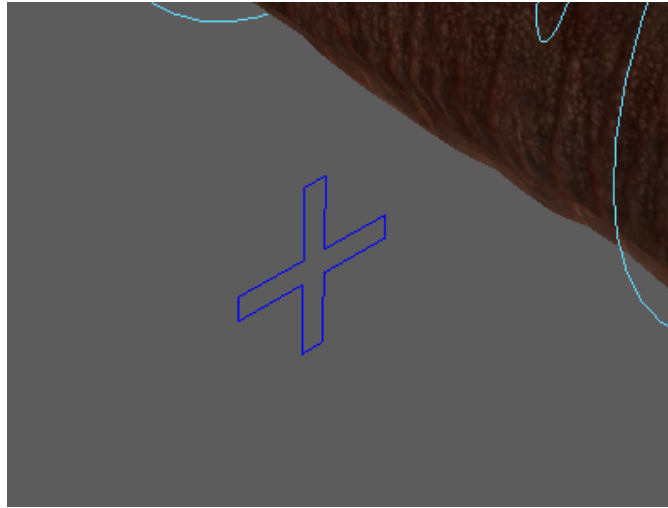
- Then hit "6" on your keyboard to load in all the textures and you are good to go.



## D.2 Using the rig

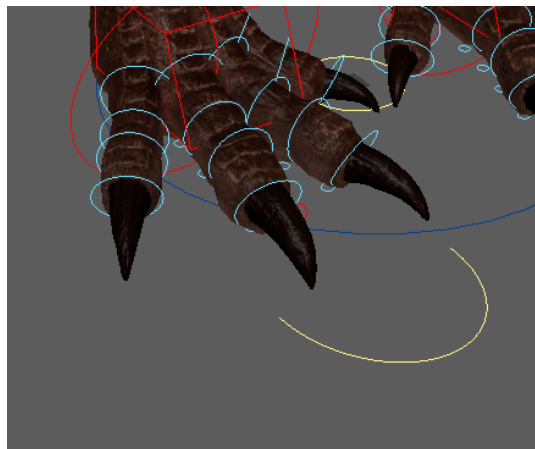
### D.2.1. IK/FK

- Use the blue cross to switch between IK and FK.



D.2.3. Fingers and Toes control.

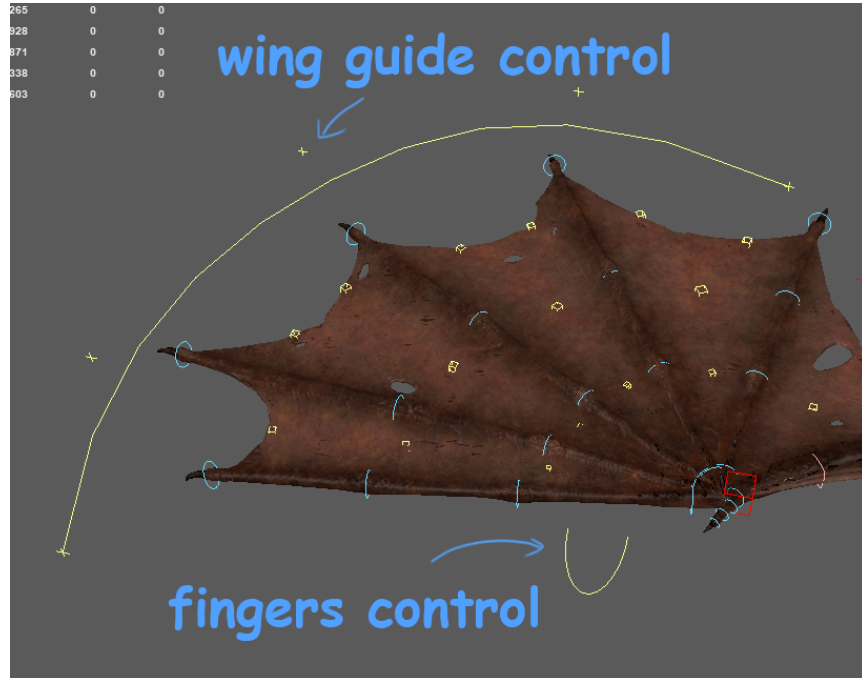
- Simply using this yellow curve



Dragon_AS_v6_132_READY__CONVERTED_9:toesCu...	
Spread	0
Index Curl	0
Middle Curl	0
Pinky Curl	0
Thumb Curl	0

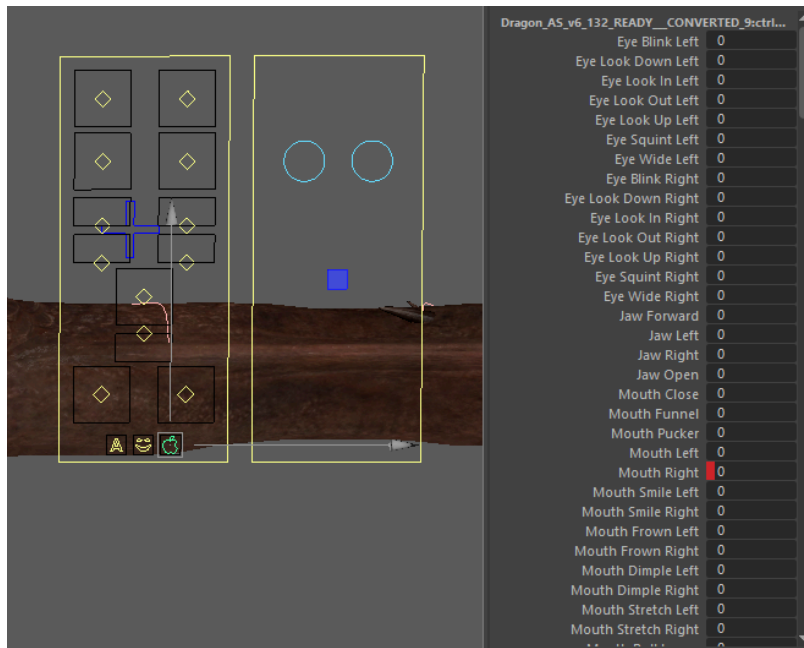
D.2.4. Wing control.

- You can control the Wing's fingers by using either the Finger control or Wing Guide control



#### D.2.5. Face control.

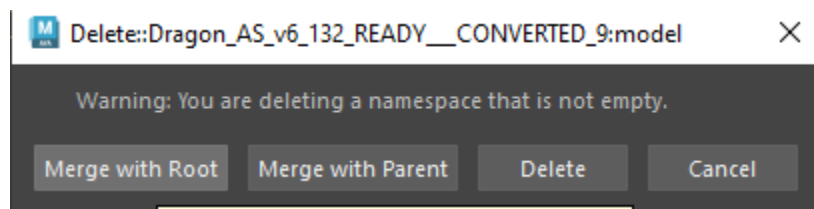
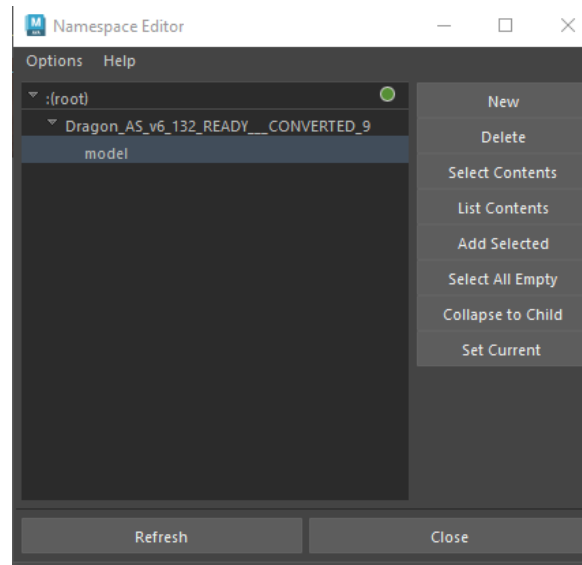
- Use all these curve to control the face and emotions of the Dragon (image below).
- Remember that they are all blendshape-based. You will export them as blendshape (Morph Target)



#### D.3 Export the rig.

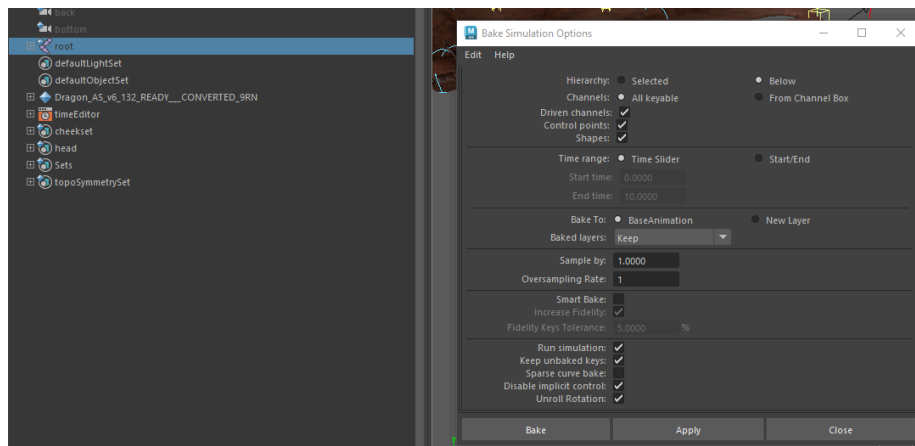
- After you have done rigging. You will have to:

Step1: Delete namespace. Go to Namespace Editor and delete all the Namespace (except for the root) with **Merge with Root** option

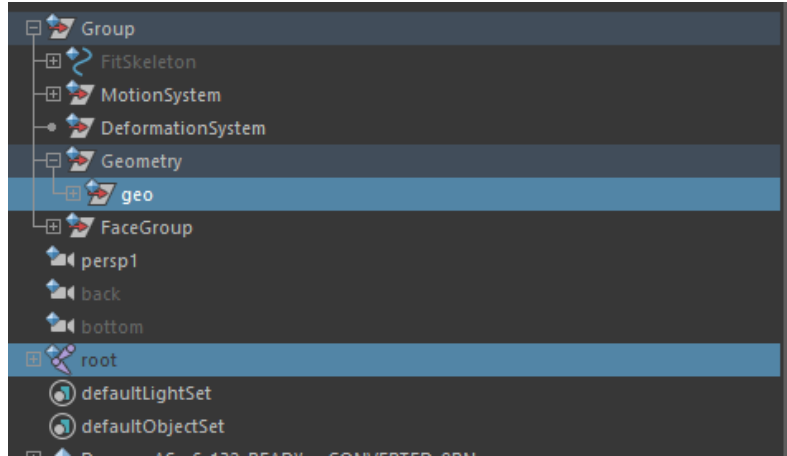


When you are done, only the root is left:

Step2: Bake key. Select the root bone, then go to Key->Bake Simulation. Change the option as below, then hit Bake.

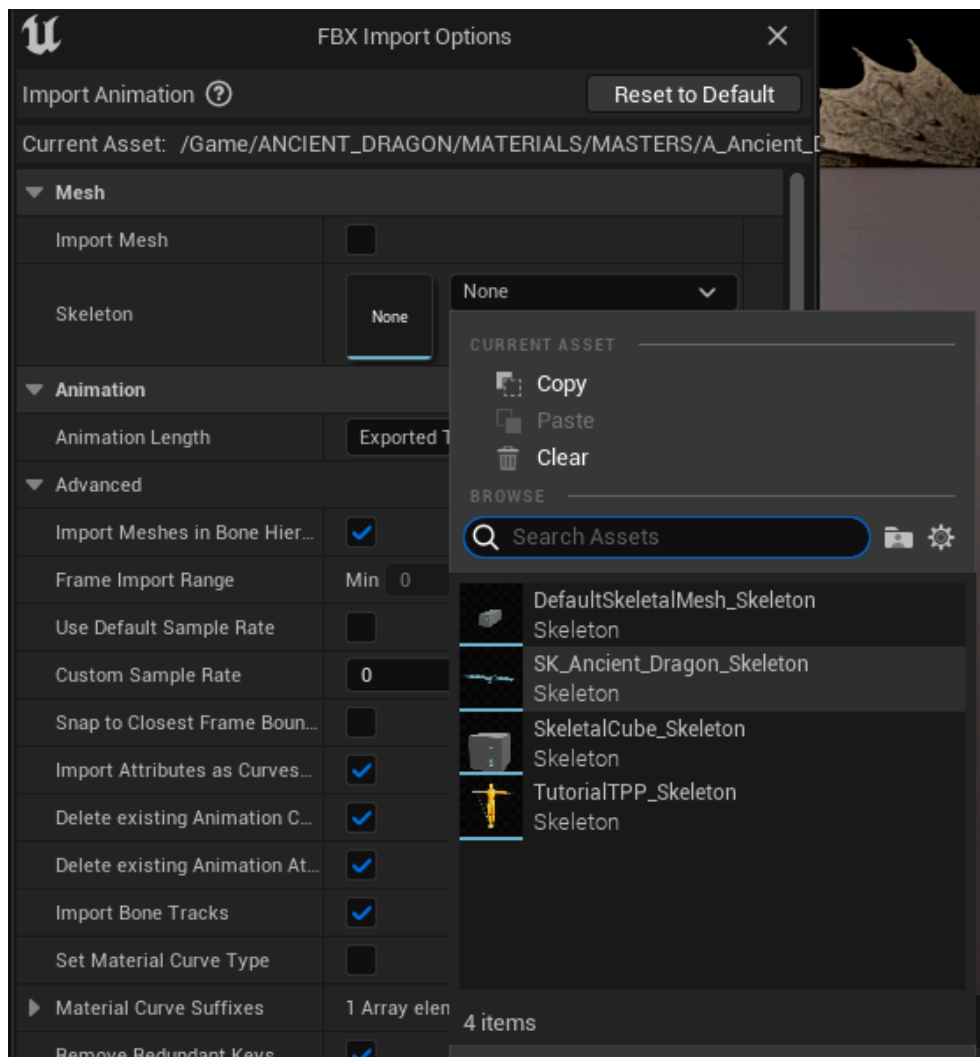


Step3: Export. Choose the **root** and the **geo** folder to export. Remember to **include Animations** and Deformed Models: **BlendShapes** when you export.



Step4: Import into UE:

- Uncheck import mesh.
- Choose the SK\_Ancient\_Dragon\_skeleton.





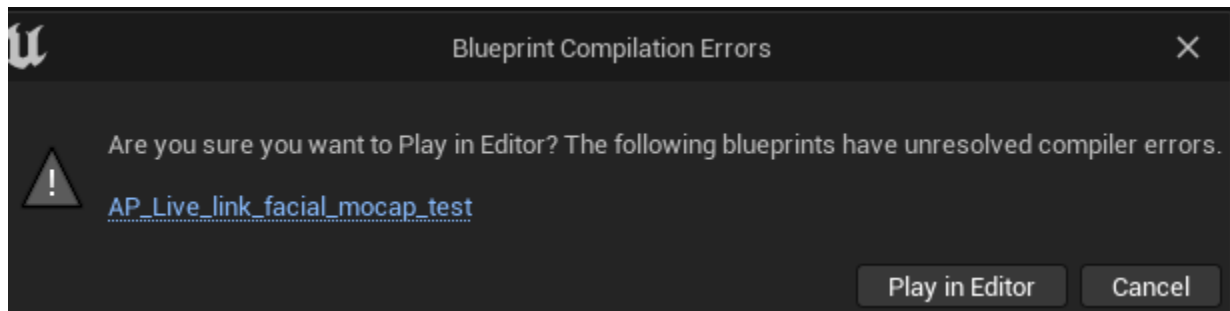
## E. FAQ

### 1. Live link facial motion capture not working.

- Please make sure that you have enabled all the required plugins:
  - + ARkit
  - + ARkit face support.
  - + Live link
- Make sure you don't open 2 UE projects at the same time.
- Make sure your iphone/ipad is on the same wifi with the PC.

### 2. The overview level gives a Blueprint Compilation Errors message when playing.

- It caused by the Live link Blueprint actor. If you are not going to use the live link feature, just ignore the message and hit Play in the editor



3.

## F. CONTACT US

**Support:** [nakedsingularity.studio@gmail.com](mailto:nakedsingularity.studio@gmail.com)

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